

## General Biology

### BODY IMAGE ILLUSIONS DECREASE AS A FUNCTION OF AGE

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Humans maintain a central representation of the location of each of our body parts at all times. This phenomenon is sometimes called body image, and it can be shown that this body image has a certain amount of plasticity. By inducing specific illusions that rely on visual and tactile sensory perception, the mind can be tricked into thinking that the size or shape of the body it controls has changed. For our purposes, we experimented with an illusion (originally discovered by V.S. Ramachandran) that produces in some people a misperception that an inanimate object is a part of the body. By experimenting with this illusion in a large population of various ages, we have demonstrated that this apparent mental plasticity is correlated with age. The greatest amount of plasticity seems to be present during the early adolescent and teenage years, with a decrease after about age 20. There also appears to be a gender difference in the ability to perceive this illusion, with males having a much lower rate of perception than females after approximately 20 years of age.